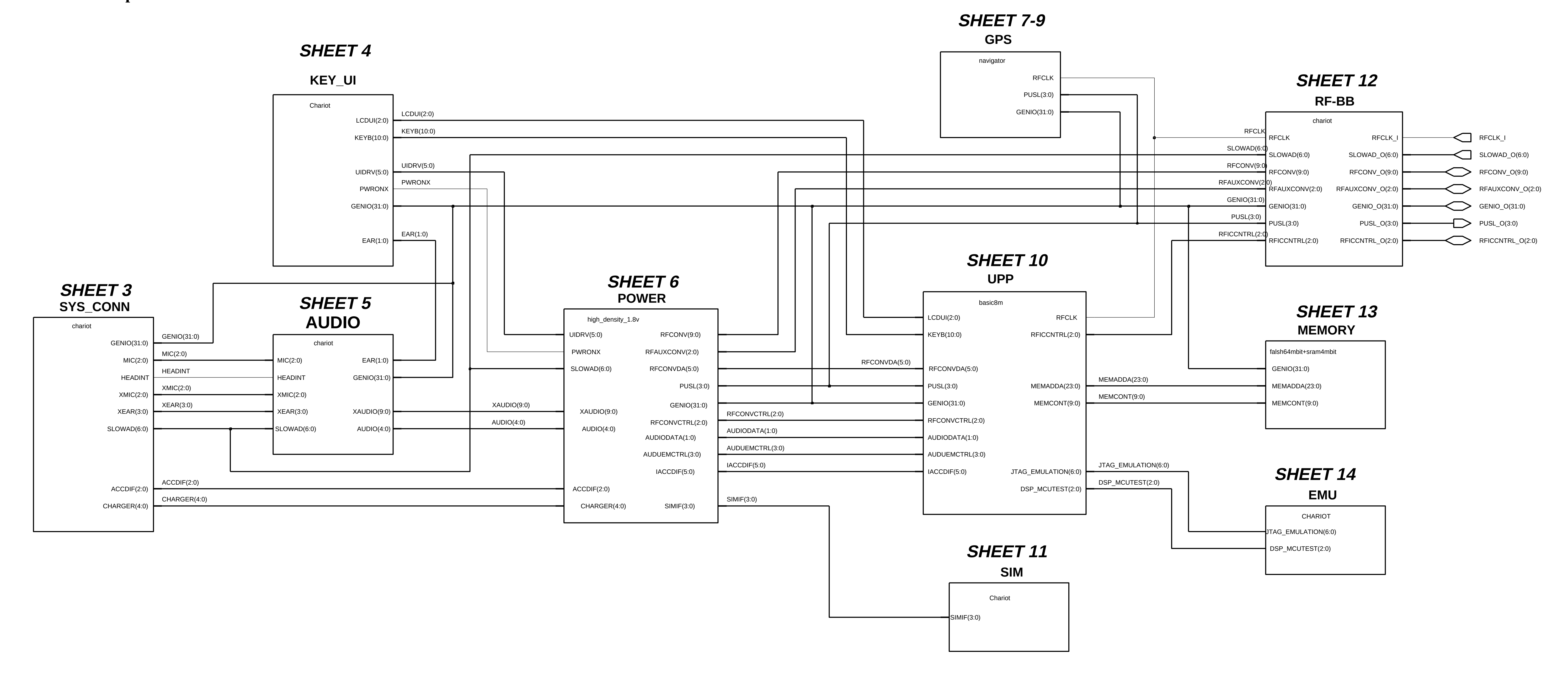
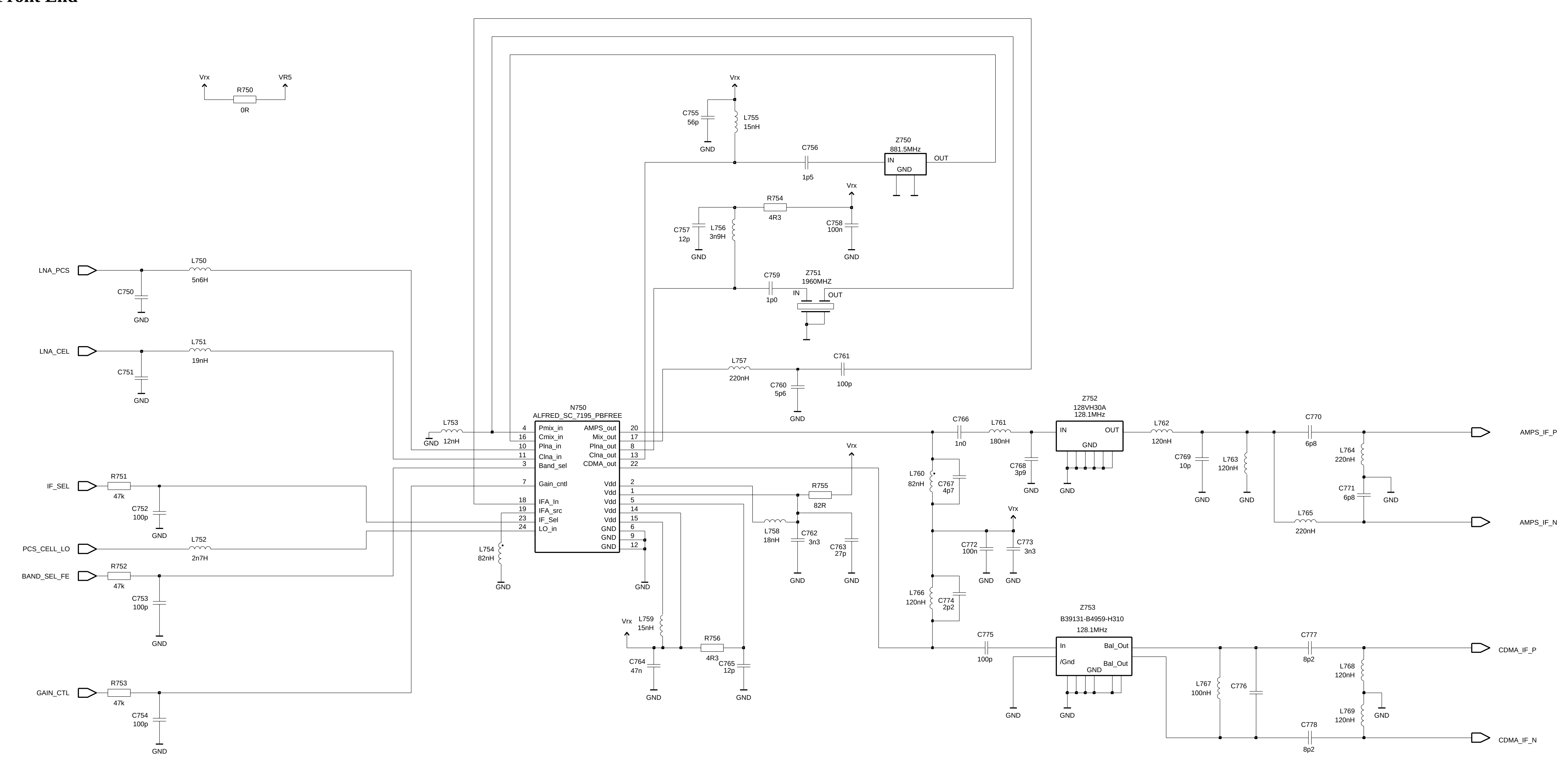
6019i Schematics

Baseband - Top



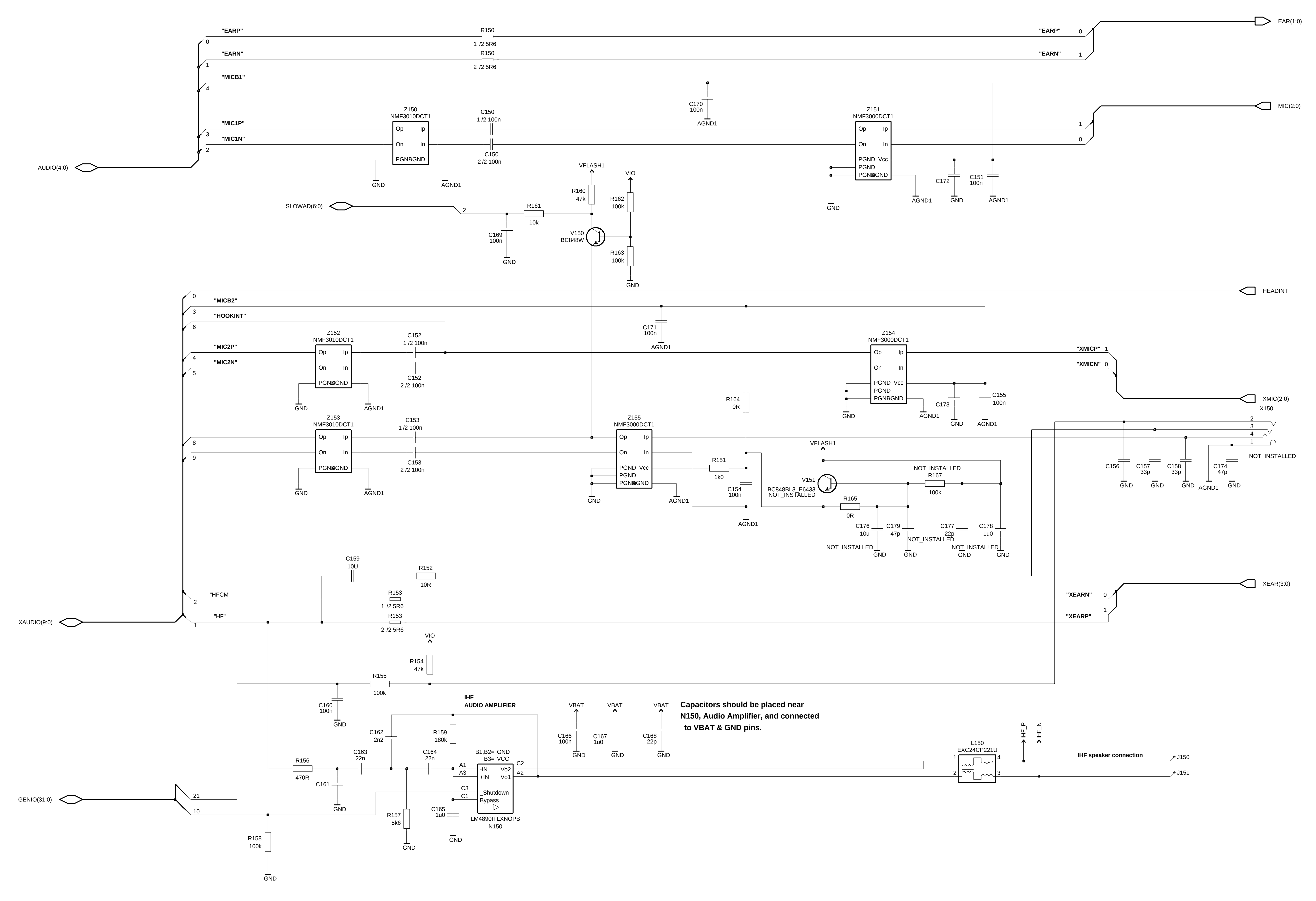
Front End



	LOGIC INPUTS		
MODES	BAND	GAIN_CTL	IF_SEL
CEL CDMA Hi Gain	0	1	0
CEL CDMA Lo Gain	0	0	0
PCS CDMA Hi Gain	1	1	0
PCS CDMA Lo Gain	1	0	0
AMPS Hi Gain	0	1	1
AMPS Lo Gain	0	0	1

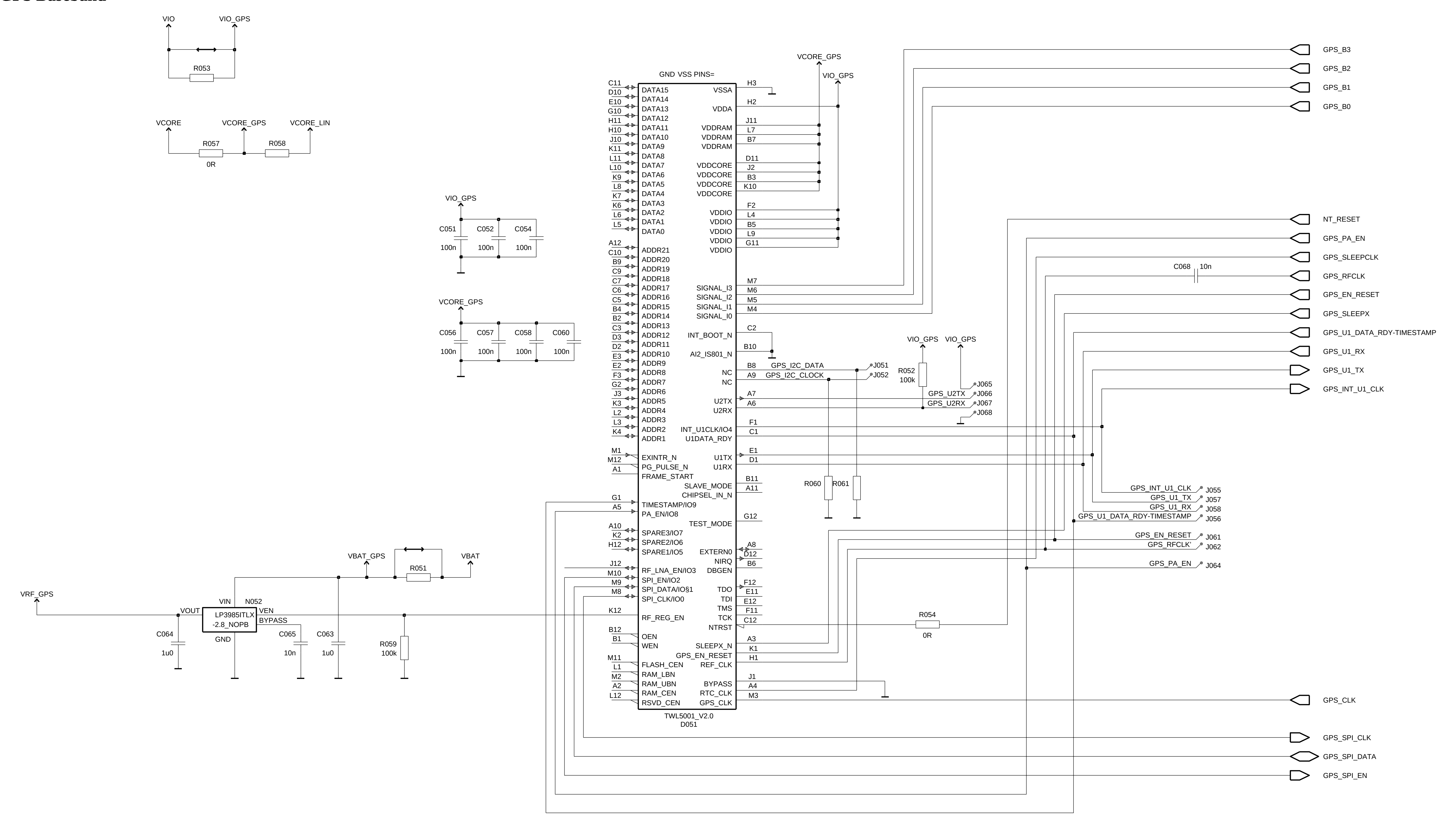
VARIANT DNI	
HDB91 800	HDC93 1900
C750	*C751*
C759	*C756*
L750	*C766*
Z751	*C768*
	C769
	C770
	C771
	L751
	L761
	L762
	L763
	L764
	L765
	Z750
	Z752

Audio

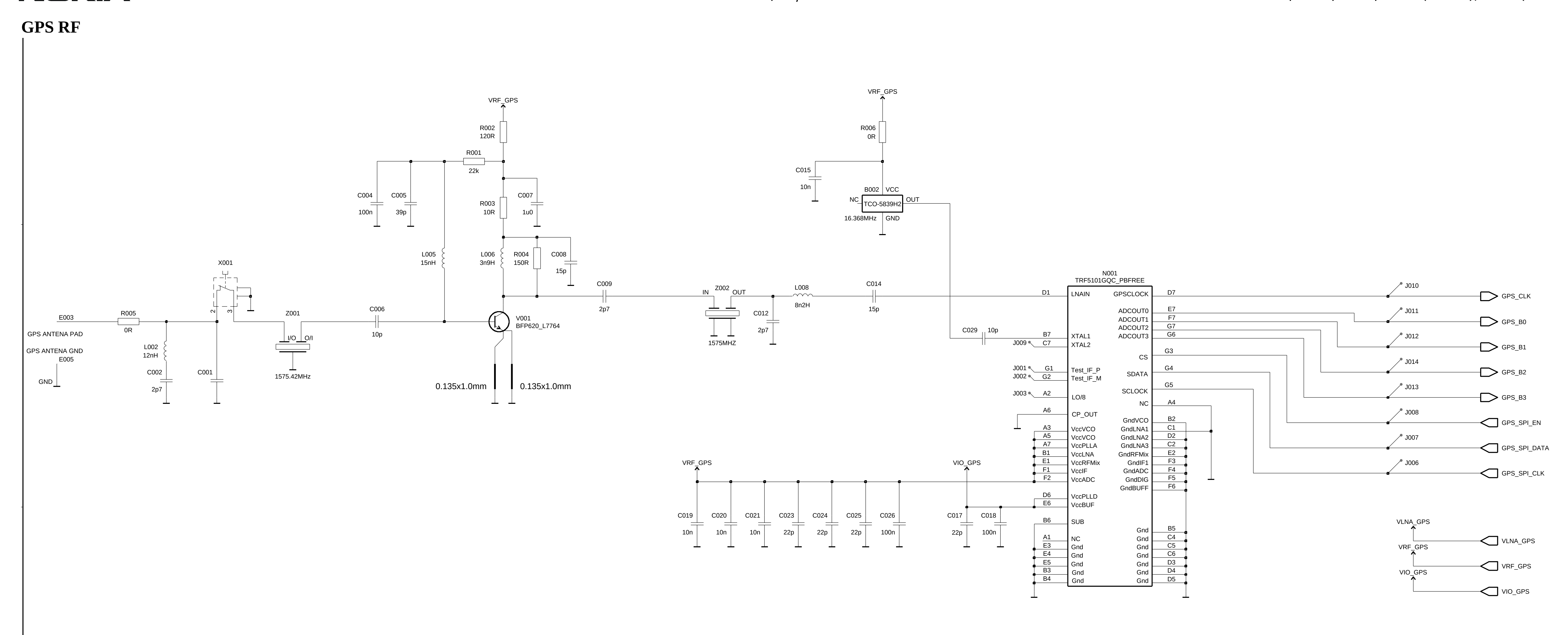


AUDIO(4:0)
SLOWAD(6:0)
XAUDIO(9:0)
GENIO(31:0)
EAR(1:0)
MIC(2:0)
HEADINT
XMIC(2:0)
XEAR(3:0)
"EARP"
"EARN"
"MICB1"
"MIC1P"
"MIC1N"
"MICB2"
"HOOKINT"
"MIC2P"
"MIC2N"
"HFCM"
"HF"
"XMICP"
"XMICN"
"XEARN"
"XEARP"
Z150 NMF3010DCT1
Z151 NMF3000DCT1
Z152 NMF3010DCT1
Z153 NMF3010DCT1
Z154 NMF3000DCT1
Z155 NMF3000DCT1
V150 BC848W
V151 BC848BL3_E6433 NOT_INSTALLED
X150
NOT_INSTALLED
IHF AUDIO AMPLIFIER
LM4890ITLXNOPB N150
B1,B2= GND B3= VCC
Capacitors should be placed near N150, Audio Amplifier, and connected to VBAT & GND pins.
L150 EXC24CP221U
IHF_P
IHF_N
IHF speaker connection
J150
J151
VFLASH1
VIO
VBAT
GND
AGND1

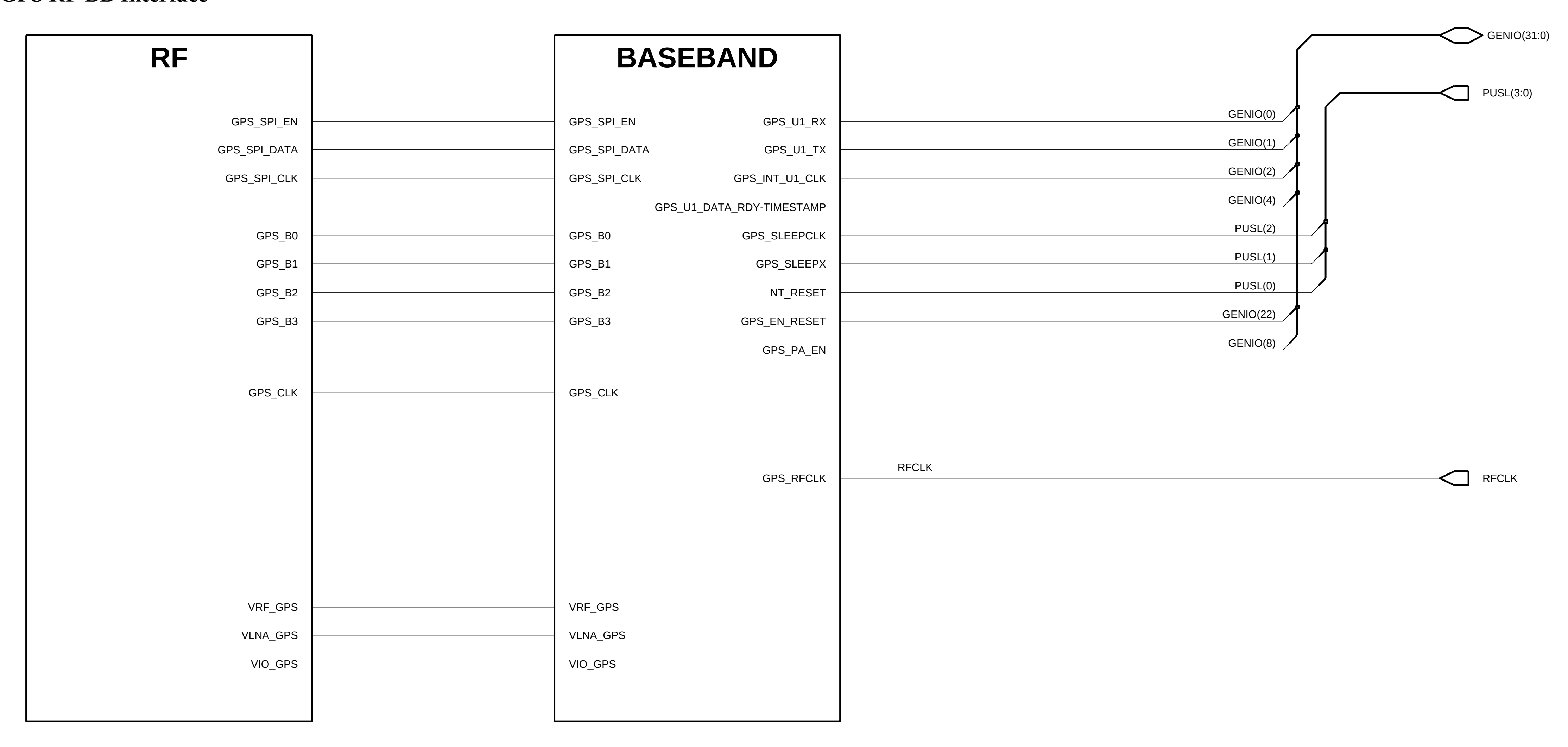
GPS Baseband



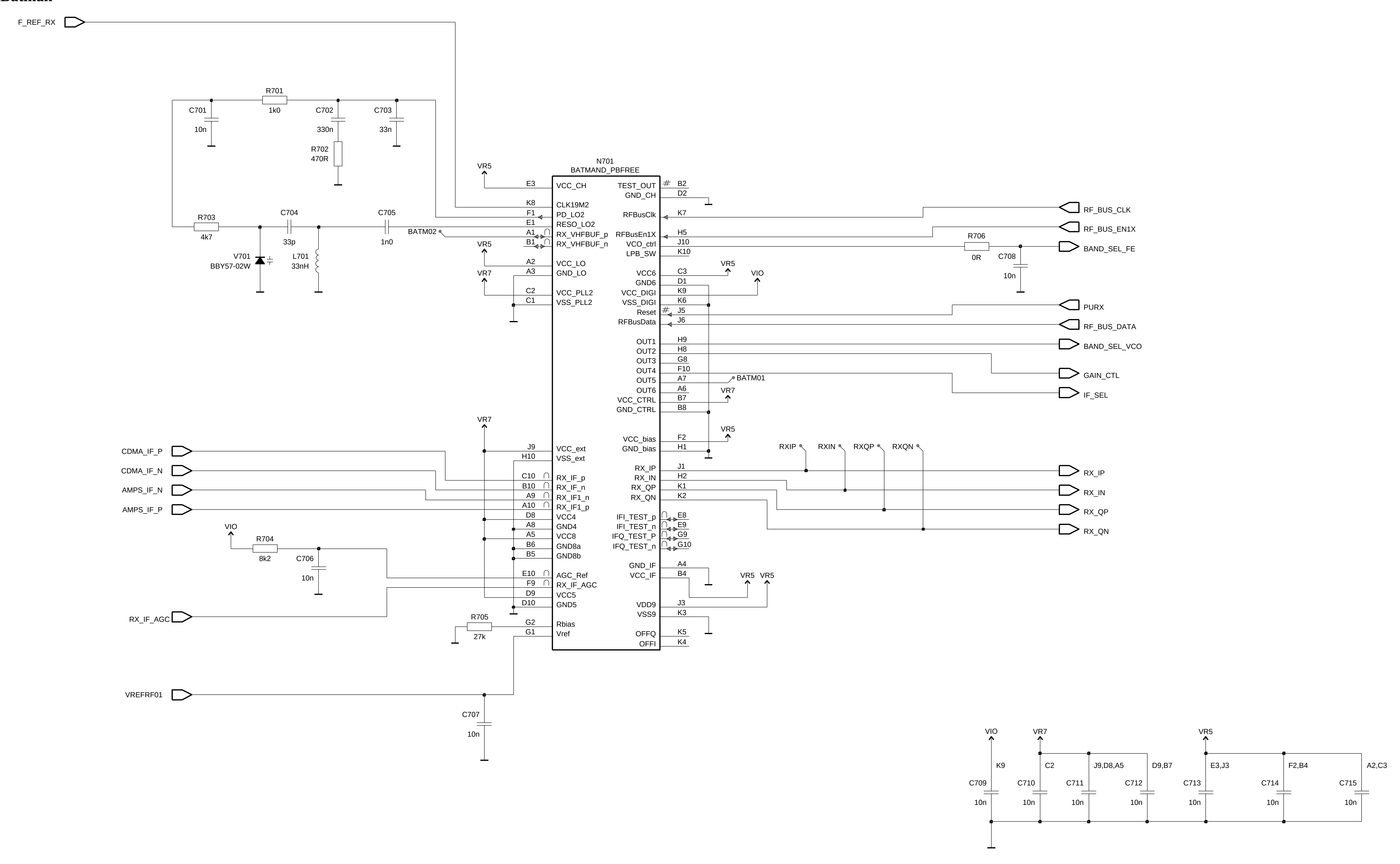
GPS RF



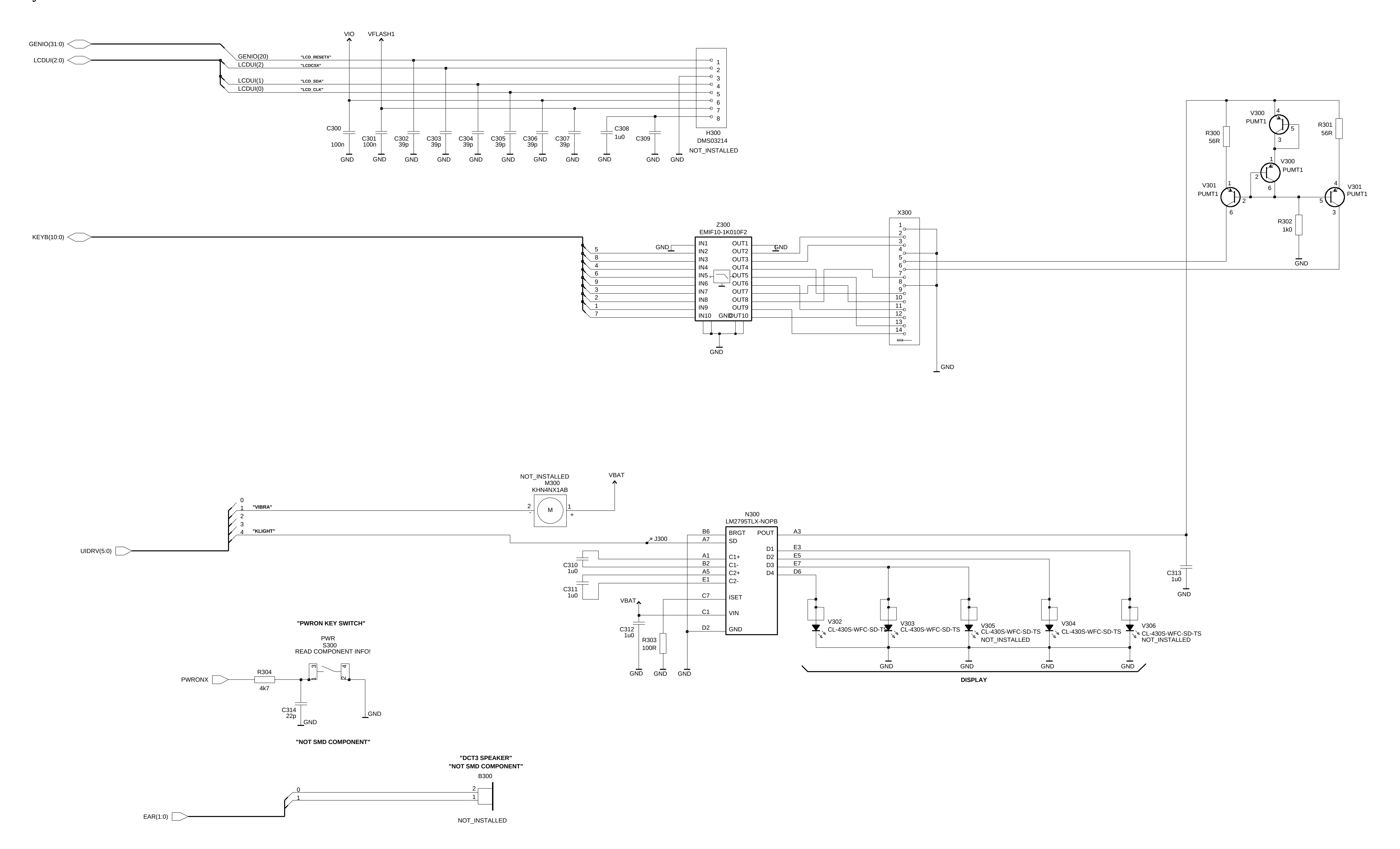
GPS RF BB Interface



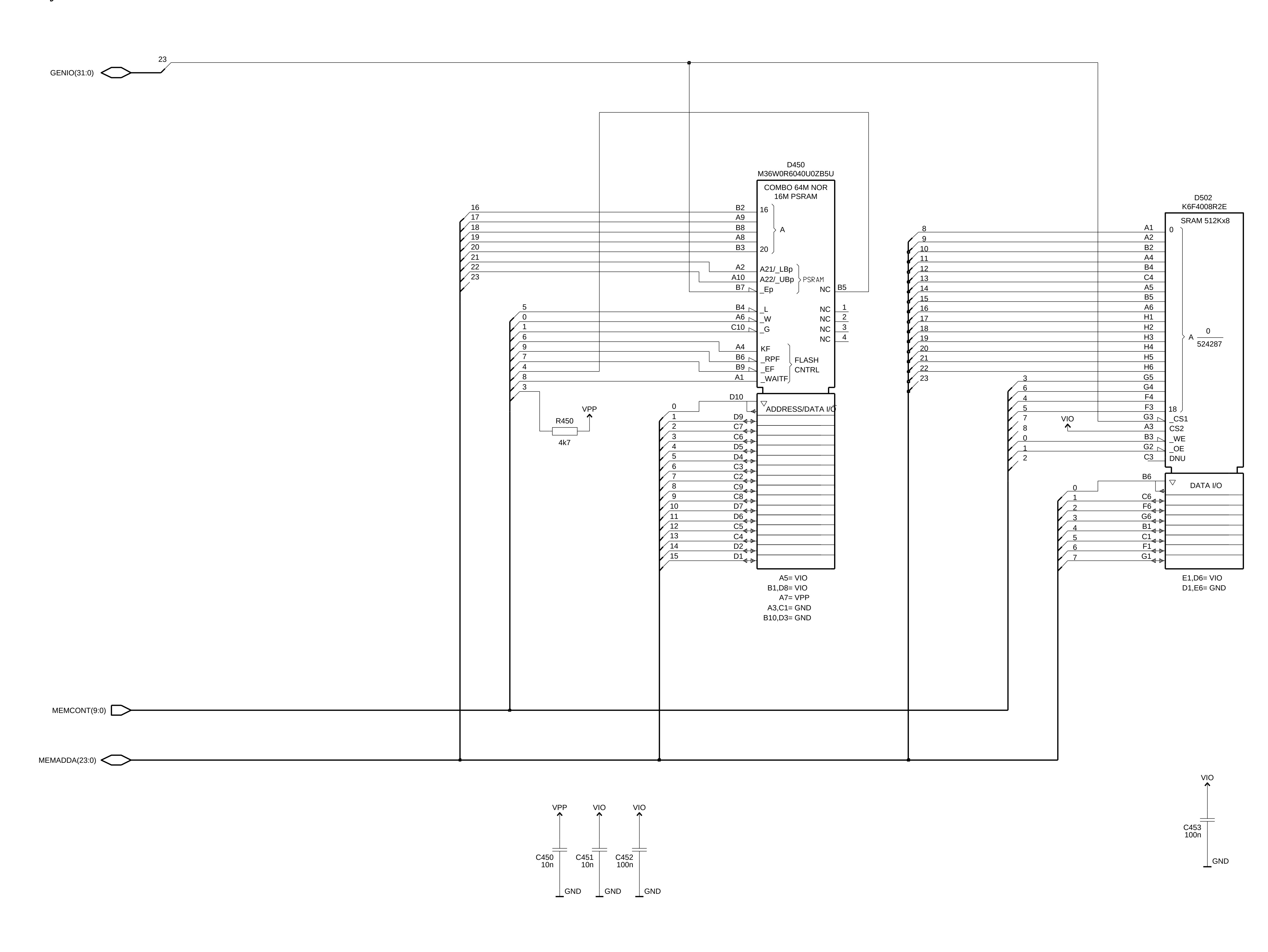
Batman


F_REF_RX
R701
1k0
C701
10n
C702
330n
C703
33n
R702
470R
N701
BATMAND_PBFREE
VR5
R703
4k7
C704
33p
C705
1n0
V701
BBY57-02W
L701
33nH
BATM02
VCC_CH
CLK19M2
PD_LO2
RESO_LO2
RX_VHFBUF_p
RX_VHFBUF_n
VCC_LO
GND_LO
VCC_PLL2
VSS_PLL2
TEST_OUT
GND_CH
RFBusClk
RFBusEn1X
VCO_ctrl
LPB_SW
VCC6
GND6
VCC_DIGI
VSS_DIGI
Reset
RFBusData
OUT1
OUT2
OUT3
OUT4
OUT5
OUT6
VCC_CTRL
GND_CTRL
VCC_bias
GND_bias
RX_IP
RX_IN
RX_QP
RX_QN
IFI_TEST_p
IFI_TEST_n
IFQ_TEST_P
IFQ_TEST_n
GND_IF
VCC_IF
VDD9
VSS9
OFFQ
OFFI
RF_BUS_CLK
RF_BUS_EN1X
R706
0R
C708
10n
BAND_SEL_FE
VIO
VR7
PURX
RF_BUS_DATA
BAND_SEL_VCO
BATM01
GAIN_CTL
IF_SEL
RXIP
RXIN
RXQP
RXQN
CDMA_IF_P
CDMA_IF_N
AMPS_IF_N
AMPS_IF_P
VCC_ext
VSS_ext
RX_IF_p
RX_IF_n
RX_IF1_n
RX_IF1_p
VCC4
GND4
VCC8
GND8a
GND8b
AGC_Ref
RX_IF_AGC
VCC5
GND5
Rbias
Vref
R704
8k2
C706
10n
RX_IF_AGC
R705
27k
VREFRF01
C707
10n
C709
C710
C711
C712
C713
C714
C715
K9
C2
J9,D8,A5
D9,B7
E3,J3
F2,B4
A2,C3

Key UI


GENIO(31:0)
LCDUI(2:0)
VIO
VFLASH1
GENIO(20)
LCDUI(2)
LCDUI(1)
LCDUI(0)
"LCD_RESETX"
"LCDCSX"
"LCD_SDA"
"LCD_CLK"
H300
DMS03214
NOT_INSTALLED
C300 100n
C301 100n
C302 39p
C303 39p
C304 39p
C305 39p
C306 39p
C307 39p
C308 1u0
C309
GND
KEYB(10:0)
Z300
EMIF10-1K010F2
X300
V300 PUMT1
V301 PUMT1
R300 56R
R301 56R
R302 1k0
NOT_INSTALLED
M300
KHN4NX1AB
VBAT
"VIBRA"
"KLIGHT"
UIDRV(5:0)
N300
LM2795TLX-NOPB
J300
C310 1u0
C311 1u0
C312 1u0
R303 100R
C313 1u0
V302 CL-430S-WFC-SD-TS
V303 CL-430S-WFC-SD-TS
V305 CL-430S-WFC-SD-TS NOT_INSTALLED
V304 CL-430S-WFC-SD-TS
V306 CL-430S-WFC-SD-TS NOT_INSTALLED
DISPLAY
"PWRON KEY SWITCH"
PWR
S300
READ COMPONENT INFO!
PWRONX
R304 4k7
C314 22p
"NOT SMD COMPONENT"
"DCT3 SPEAKER"
"NOT SMD COMPONENT"
B300
EAR(1:0)
NOT_INSTALLED

Memory


GENIO(31:0)
MEMCONT(9:0)
MEMADDA(23:0)
D450
M36W0R6040U0ZB5U
COMBO 64M NOR
16M PSRAM
A21/_LBp
A22/_UBp
PSRAM
_Ep
_L
_W
_G
KF
_RPF
_EF
_WAITF
FLASH
CNTRL
ADDRESS/DATA I/O
A5= VIO
B1,D8= VIO
A7= VPP
A3,C1= GND
B10,D3= GND
R450
4k7
VPP
D502
K6F4008R2E
SRAM 512Kx8
524287
_CS1
CS2
_WE
_OE
DNU
DATA I/O
E1,D6= VIO
D1,E6= GND
VIO
C450
10n
C451
10n
C452
100n
C453
100n
GND

PA

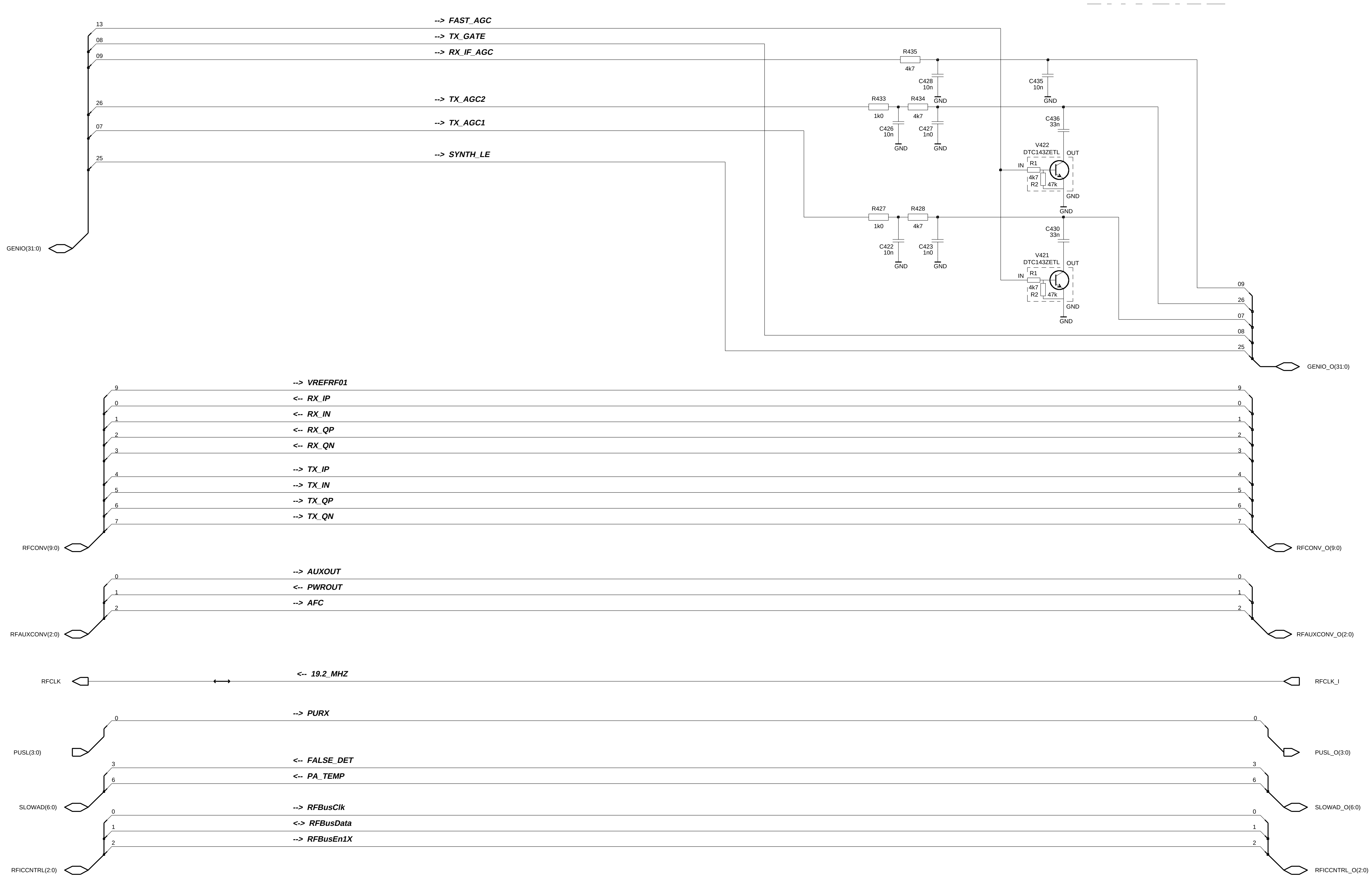
PCS

CELL

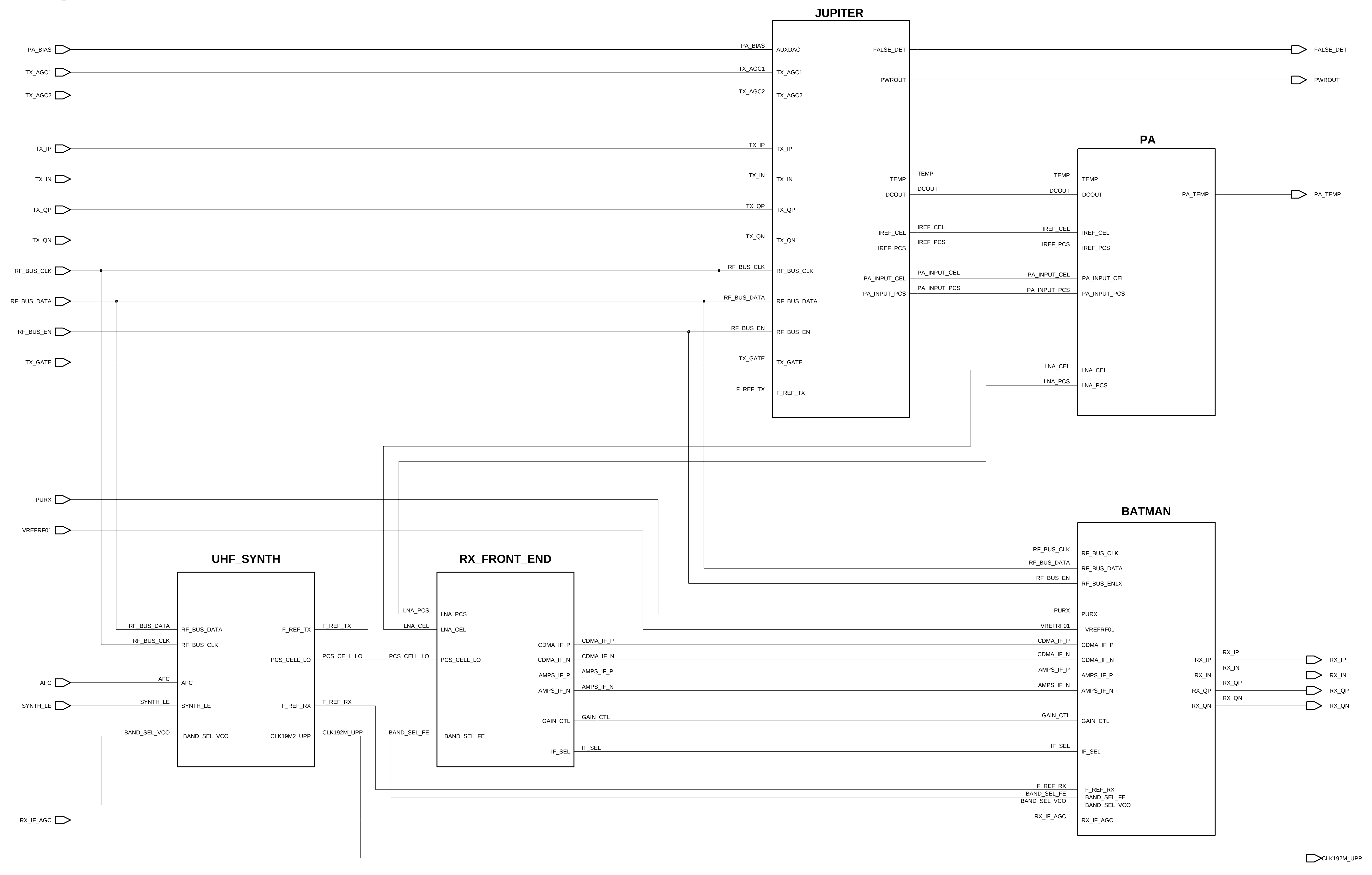
VARIANT DNI

HDC91 DB	HDB91 800	HDC93 1900
C828	C802	C816
C829	C803	C817
	C804	C818
	C805	C819
	C806	C820
	C807	C821
	C809	C822
	C810	C823
	C828	C825
	C837	C827
	L802	C829
	L810	C833
	N801	C838
	R801	L803
	R804	L808
	Z800	L811
	Z801	R802
		Z800
		Z802

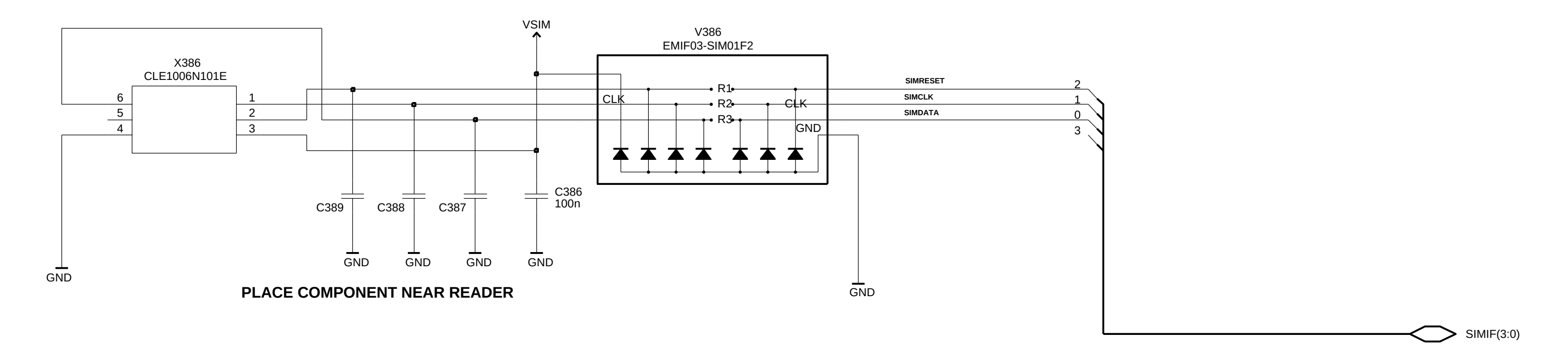
RF-BB Interface



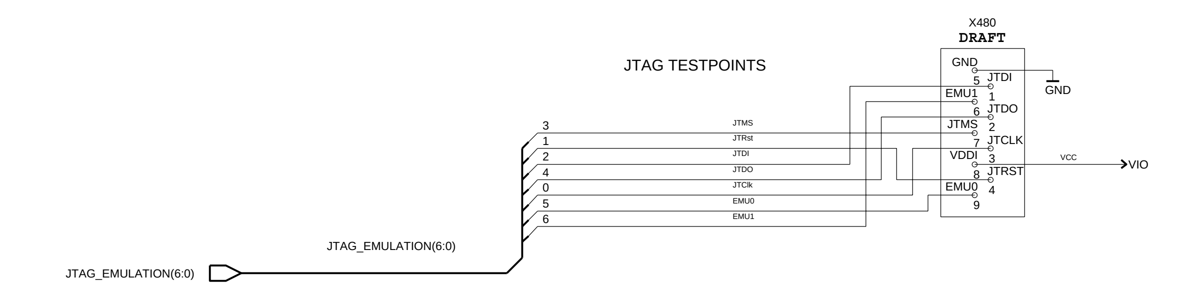
RF - Top


JUPITER
PA
BATMAN
UHF_SYNTH
RX_FRONT_END
PA_BIAS
TX_AGC1
TX_AGC2
TX_IP
TX_IN
TX_QP
TX_QN
RF_BUS_CLK
RF_BUS_DATA
RF_BUS_EN
TX_GATE
F_REF_TX
AUXDAC
FALSE_DET
PWROUT
TEMP
DCOUT
IREF_CEL
IREF_PCS
PA_INPUT_CEL
PA_INPUT_PCS
PA_TEMP
LNA_CEL
LNA_PCS
PURX
VREFRF01
RF_BUS_EN1X
CDMA_IF_P
CDMA_IF_N
AMPS_IF_P
AMPS_IF_N
GAIN_CTL
IF_SEL
F_REF_RX
BAND_SEL_FE
BAND_SEL_VCO
RX_IF_AGC
RX_IP
RX_IN
RX_QP
RX_QN
AFC
SYNTH_LE
PCS_CELL_LO
CLK19M2_UPP
CLK192M_UPP

SIM

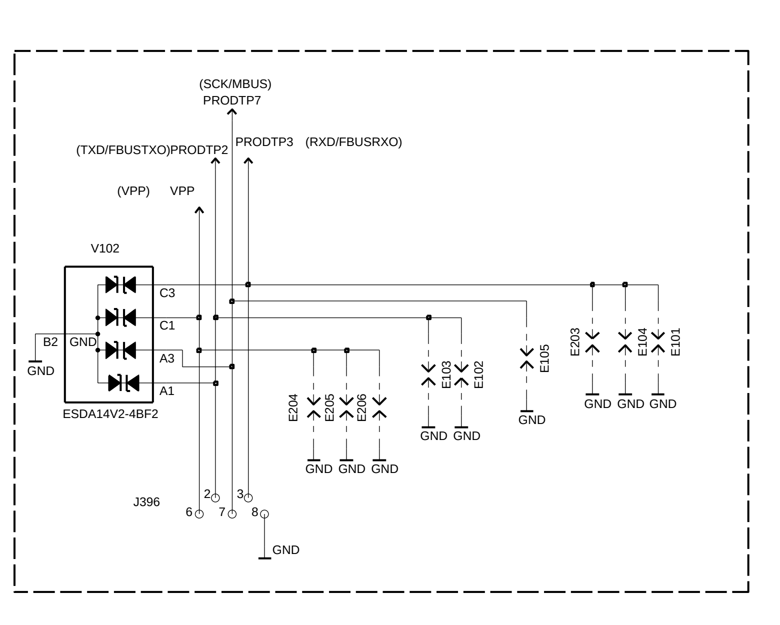


Test and Emulator Interface



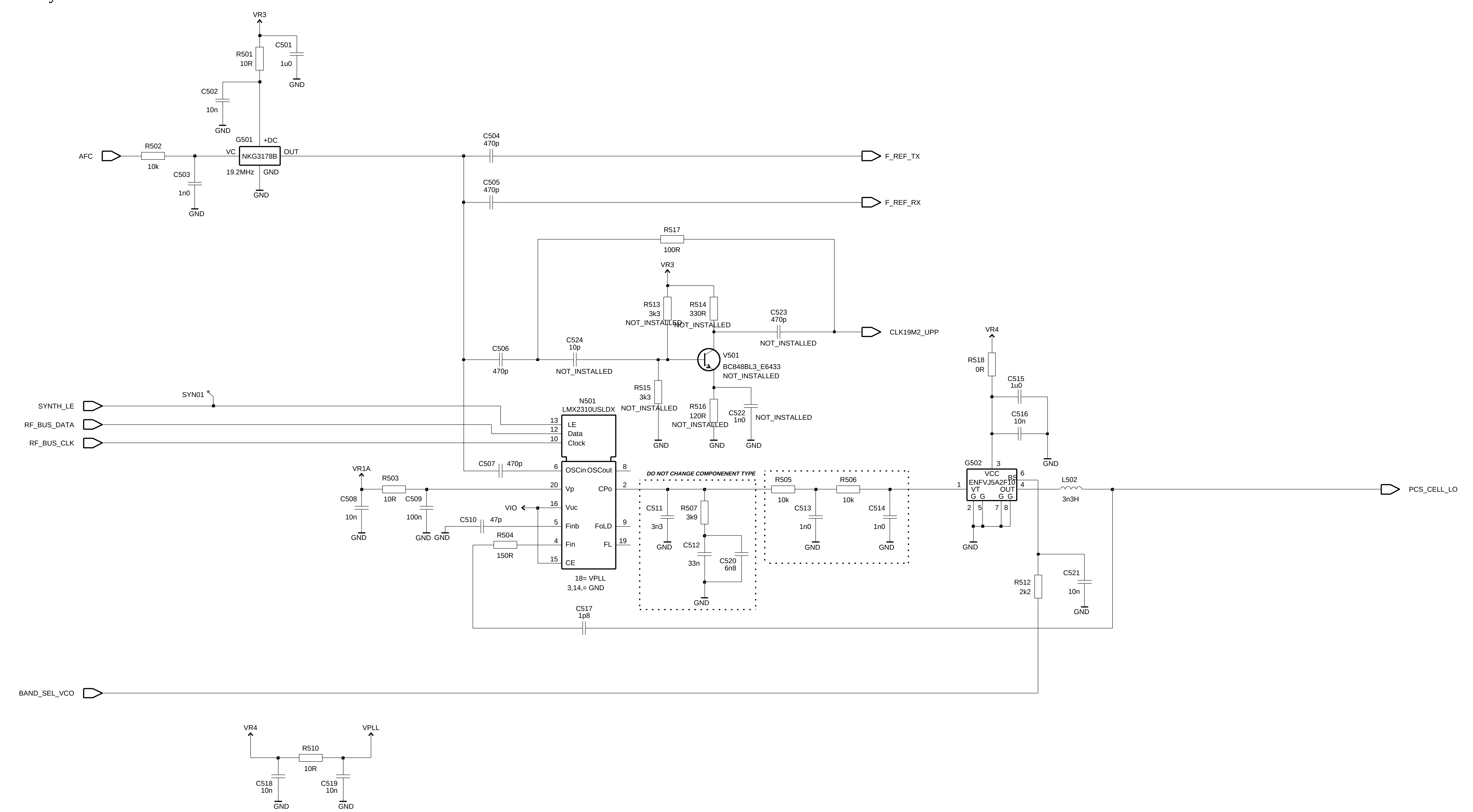


System Connector



PROD TEST PATTERN

UHF Synthesizer



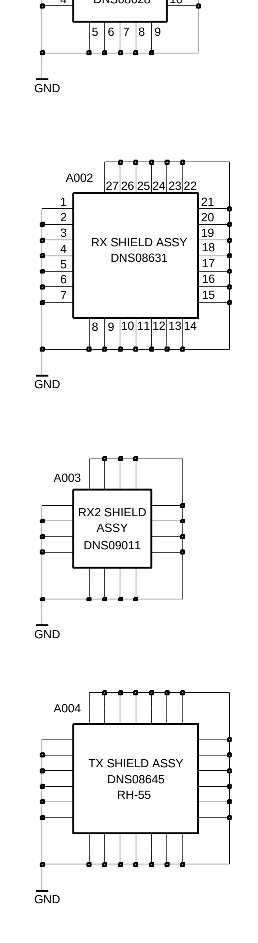
Top Level

RF

SYS

GENIO_O(31:0)
RFCLK_I
RFCONV_O(9:0)
SLOWAD_O(6:0)
PUSL_O(3:0)
RFAUXCONV_O(2:0)
RFICCNTRL_O(2:0)

07 TX_AGC1 --> TX_AGC1 TX_AGC1
26 TX_AGC2 --> TX_AGC2 TX_AGC2
09 RF_IF_AGC RF_IF_AGC RX_IF_AGC
25 SYNTH_LE --> SYNTH_LE SYNTH_LE
08 TX_GATE --> TX_GATE TX_GATE
RFCLK_I RF_CLK192M_UPP_RF <-- RF_CLK192M_UPP_RF CLK192M_UPP
9 VREFRF01 --> VREFRF01 VREFRF01
0 RX_IP_RF <-- RX_IP_RF RX_IP
1 RX_IN_RF <-- RX_IN_RF RX_IN
2 RX_QP_RF <-- RX_QP_RF RX_QP
3 RX_QN_RF <-- RX_QN_RF RX_QN
4 TX_IP_RF --> TX_IP_RF TX_IP
5 TX_IN_RF --> TX_IN_RF TX_IN
6 TX_QP_RF --> TX_QP_RF TX_QP
7 TX_QN_RF --> TX_QN_RF TX_QN
3 FALSE_DET <-- FALSE_DET FALSE_DET
6 PA_TEMP <-- PA_TEMP PA_TEMP
0 PURX --> PURX PURX
0 AUXDAC --> AUXDAC PA_BIAS
1 PWROUT <-- PWROUT PWROUT
2 AFC --> AFC AFC
0 RF_BUS_CLK --> RF_BUS_CLK RF_BUS_CLK
1 RF_BUS_DATA <-> RF_BUS_DATA RF_BUS_DATA
2 RF_BUS_EN --> RF_BUS_EN RF_BUS_EN



X105

0.9mm
E107 E108 E109 E110 E111 E112
GND

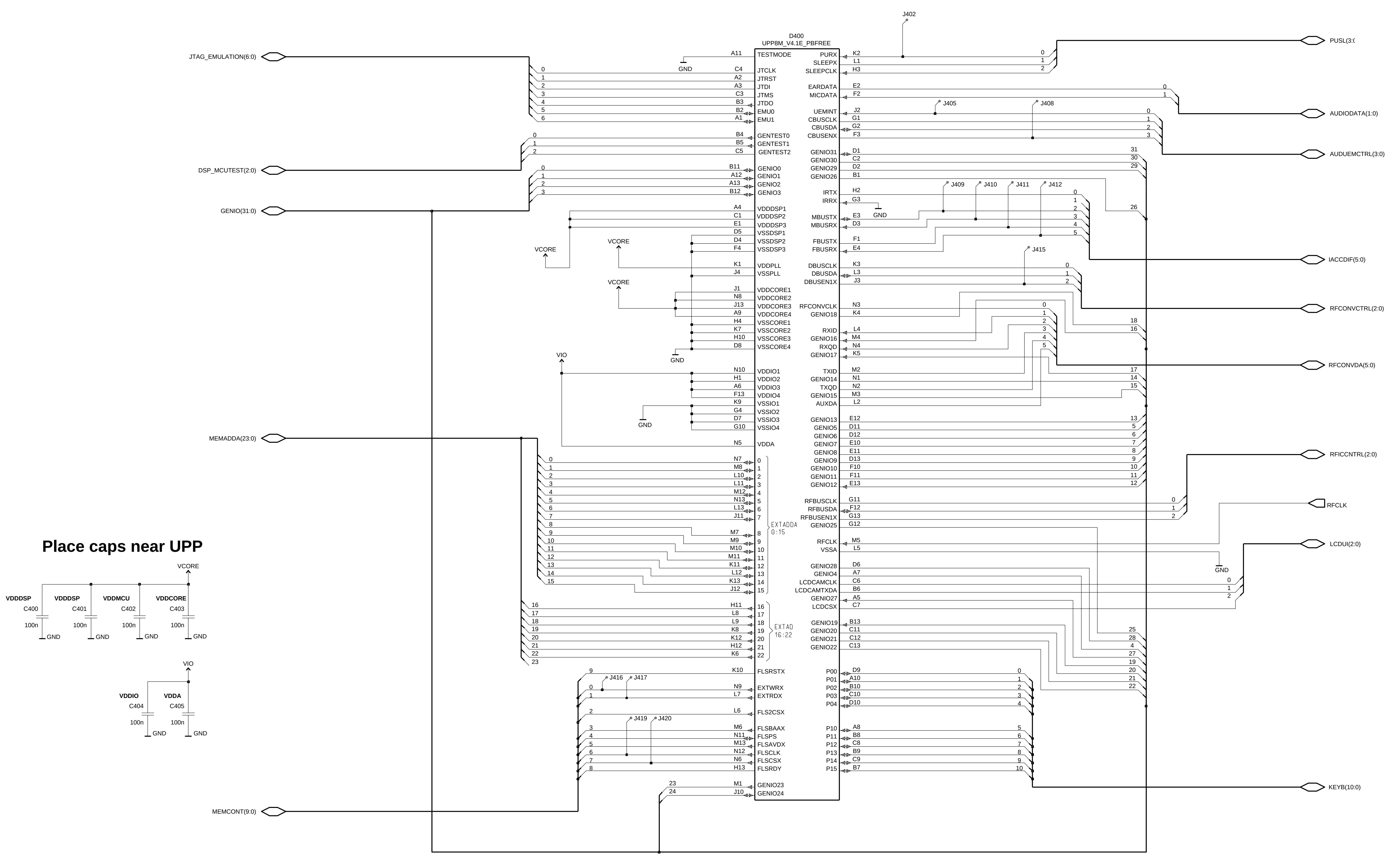
Mechanical Plated Thru Holes

5.0mm half HOLE E1 E2 GND
2.1mm half HOLE E3 E4 GND
2.3mm HOLE E5 E6 GND
E8, E9 are 2.0mm HOLE for alignment E8 E9 GND
AGND AGND1

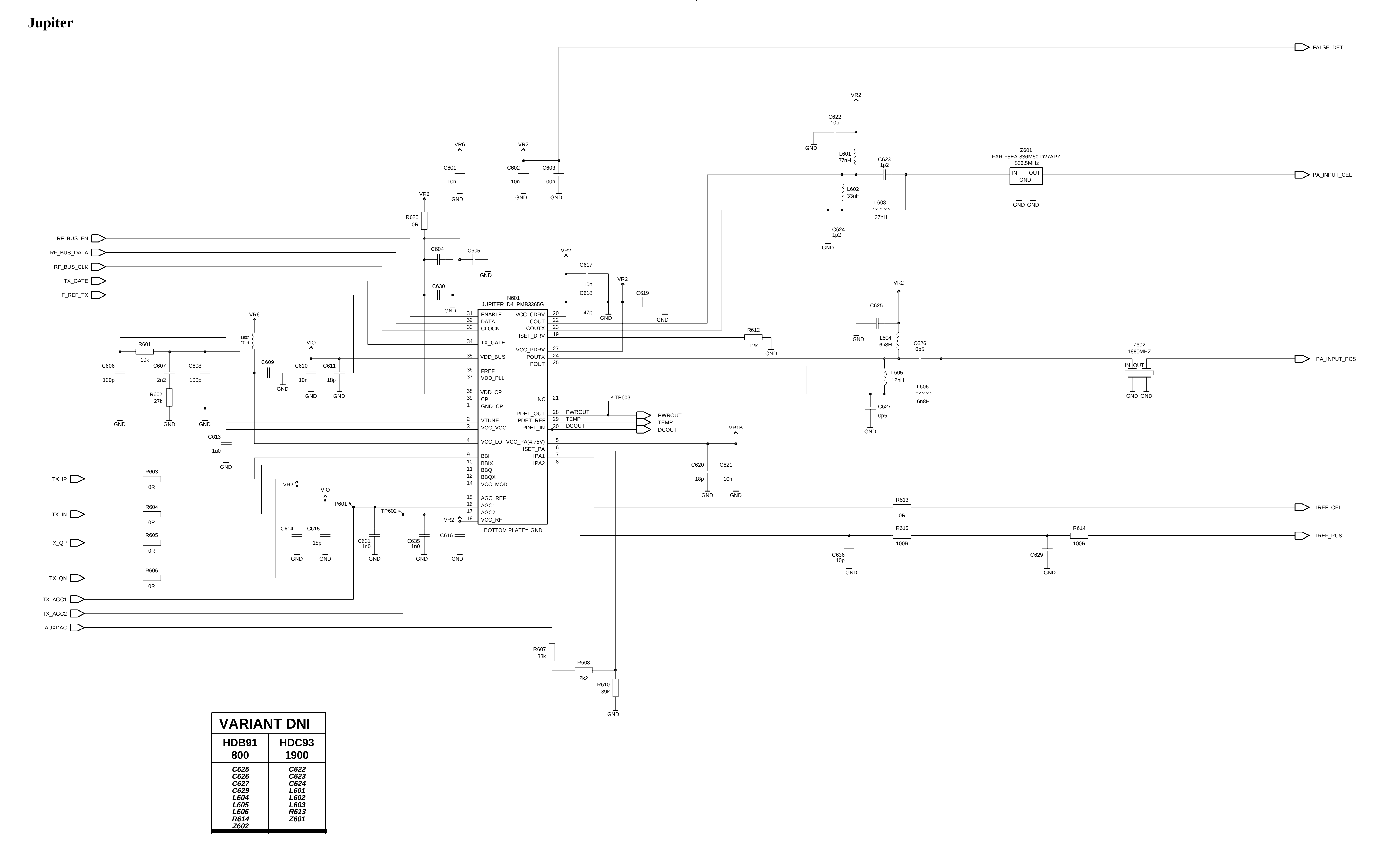
UEM

UPP8M V3.X			UPP8M V4.1		
CB0	CB1	Vout	CB0	CB1	Vout
0	1	1.35	0	0	1.05
1	1	1.57	0	1	1.35
INSTALLED R270 ONLY			INSTALLED R272 ONLY		

UPP


D400
UPP8M_V4.1E_PBFREE
JTAG_EMULATION(6:0)
DSP_MCUTEST(2:0)
GENIO(31:0)
MEMADDA(23:0)
MEMCONT(9:0)
PUSL(3:0)
AUDIODATA(1:0)
AUDUEMCTRL(3:0)
IACCDIF(5:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
RFICCNTRL(2:0)
RFCLK
LCDUI(2:0)
KEYB(10:0)
Place caps near UPP
VCORE
VIO
GND
VDDDSP
VDDMCU
VDDCORE
VDDIO
VDDA
C400
C401
C402
C403
C404
C405
100n

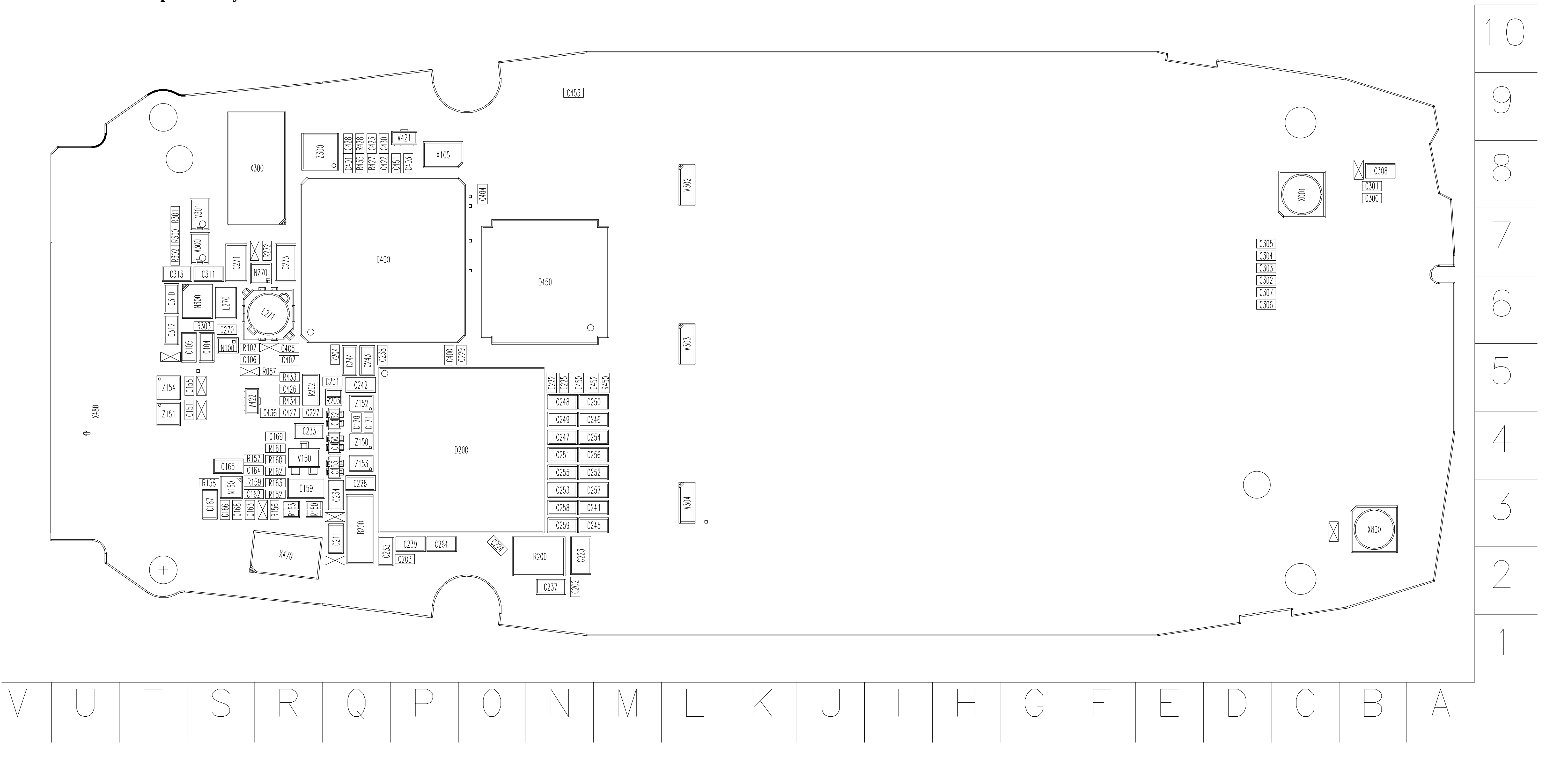
Jupiter



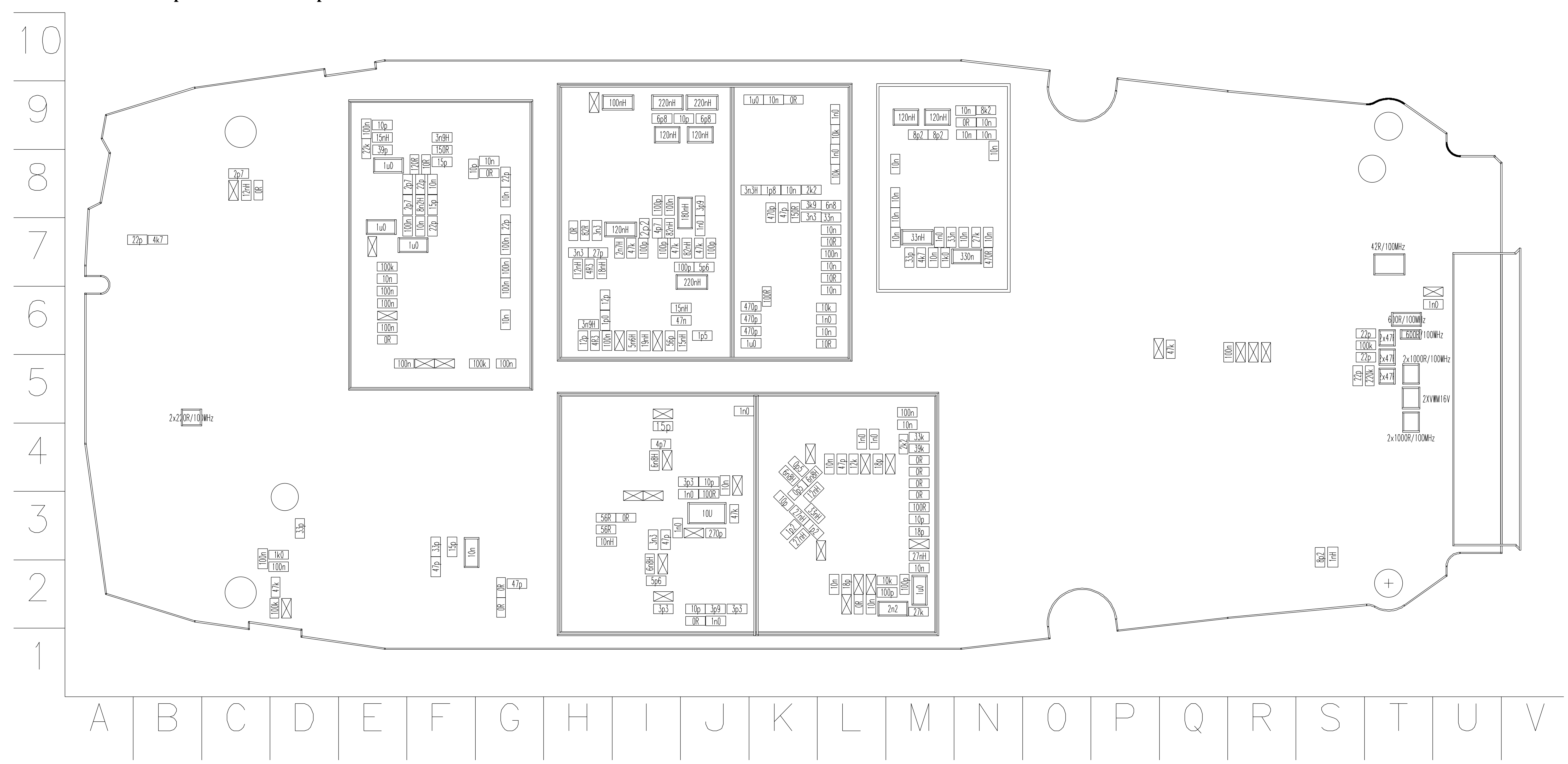
VARIANT DNI	
HDB91 800	HDC93 1900
C625	C622
C626	C623
C627	C624
C629	L601
L604	L602
L605	L603
L606	R613
R614	Z601
Z602	

6019i — 0202499 Component Layout — Top

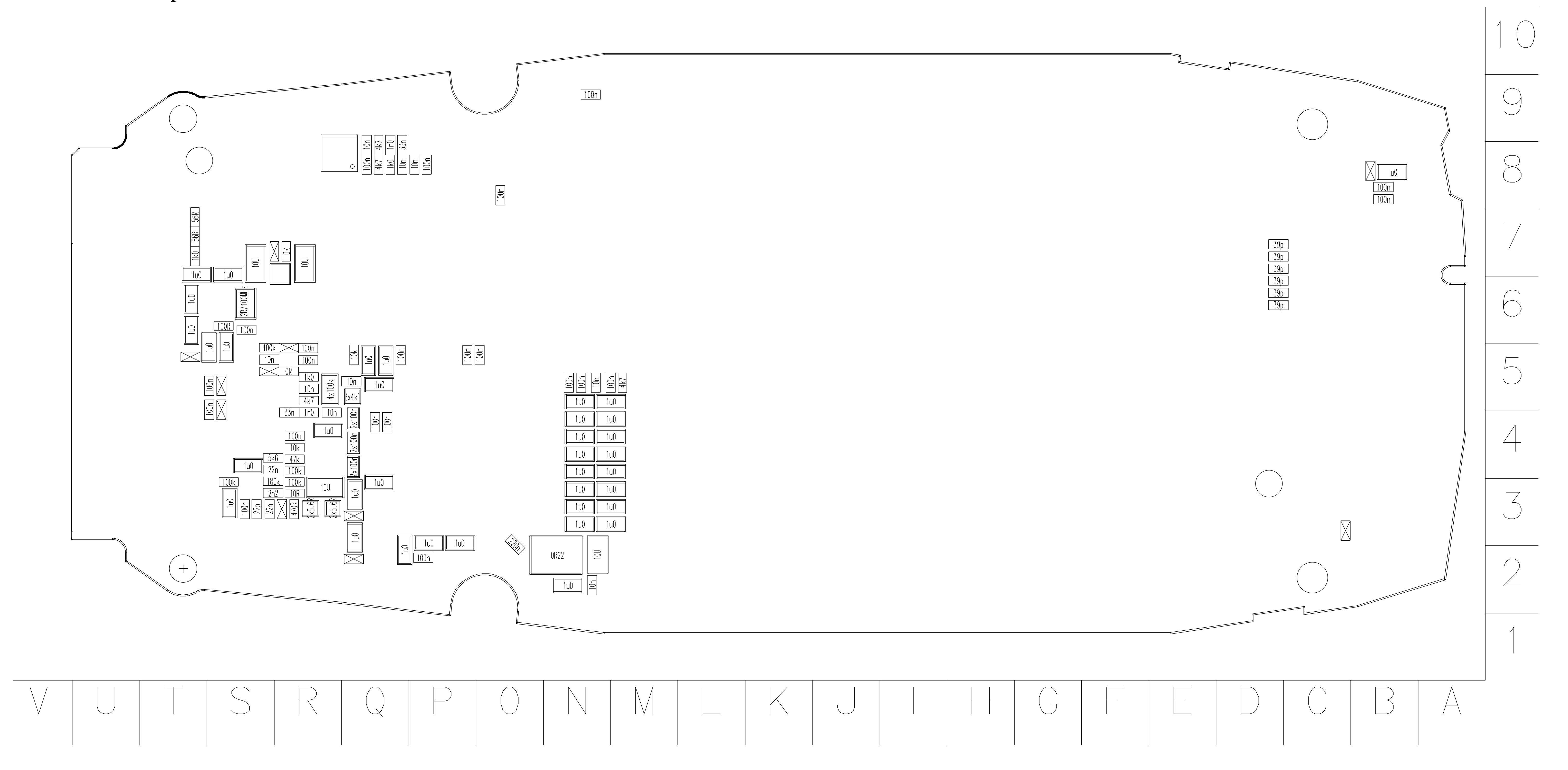
6019i — 0202499 Component Layout — Bottom



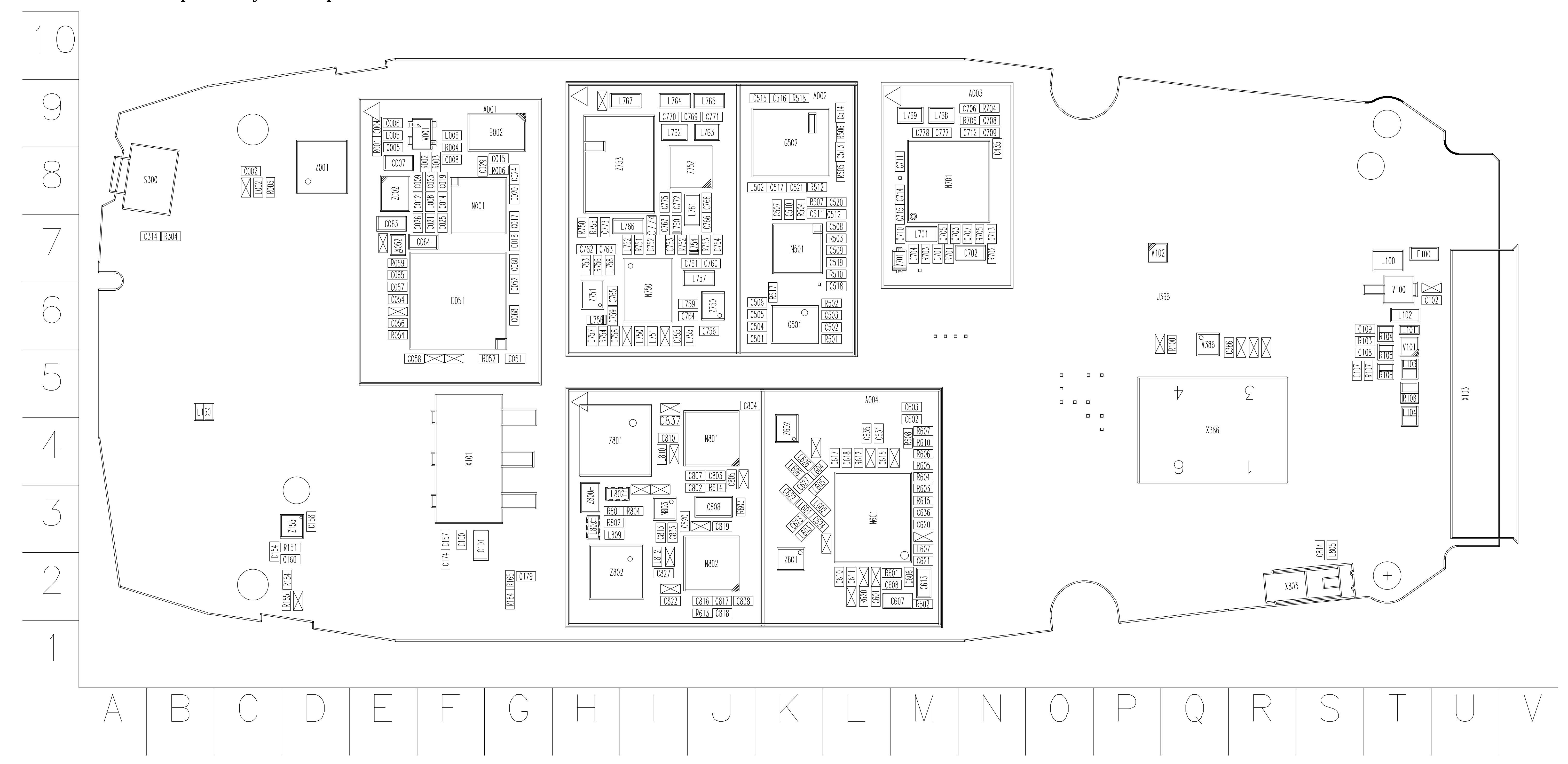
6019i — 0202499 Component Values — Top



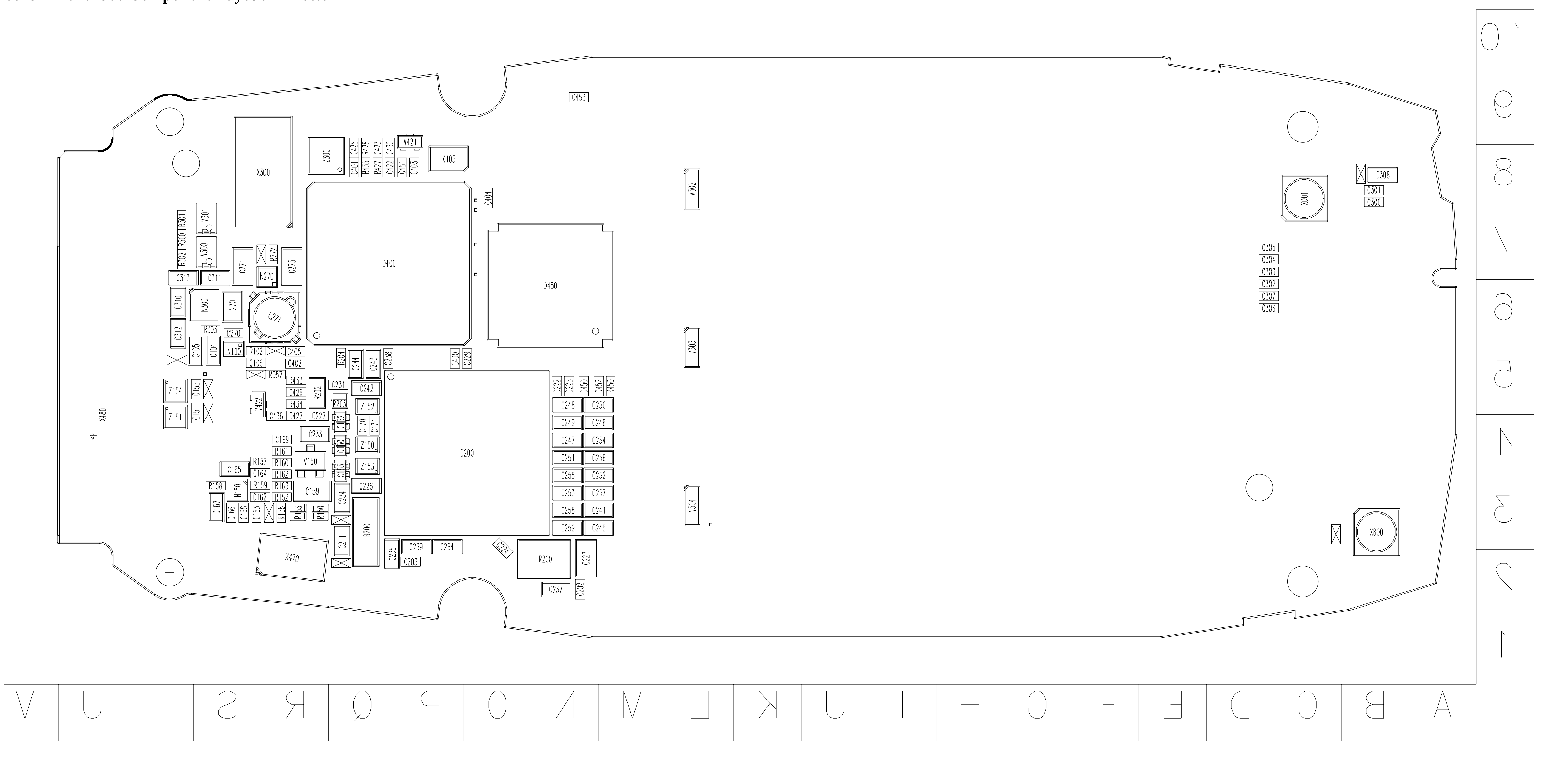
6019i — 0202499 Component Values — Bottom



6019i — 0202500 Component Layout — Top

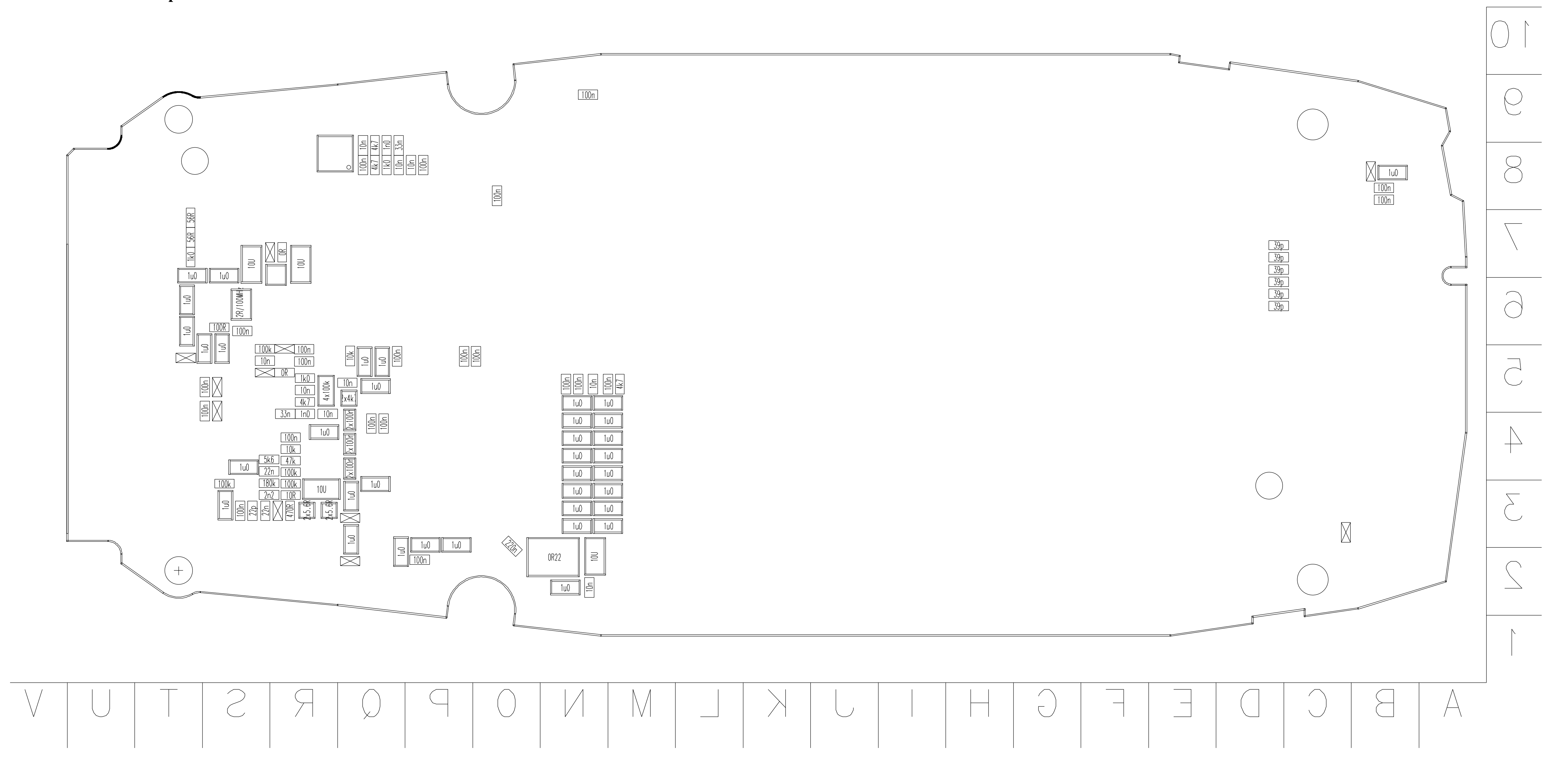


6019i — 0202500 Component Layout — Bottom



6019i — 0202500 Component Values — Top

6019i — 0202500 Component Values — Bottom



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